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COMNAVSURFLANT/COMNAVSURFPAC INSTRUCTION 3540.11

Subj: ENGINEERING OPERATIONS ASSESSMENT, TRAINING, AND QUALIFICATION FOR CONVENTIONALLY POWERED SURFACE SHIPS

Ref (a) COMNAVSURFLANT msg DTG 231330Z FEB 99

1. Purpose. To establish policy governing the assessment, training and qualification of engineering operations aboard conventionally powered ships.

2. Cancellation. Reference (a) provided interim guidance pending formulation of this policy. This policy replaces the ECERT process with assessment, training, and qualification of an individual unit to safely and effectively operate the engineering plant on a conventionally powered ship.

3. Organization

a. The Type Commanders (TYCOMs) are responsible for maintaining satisfactory engineering readiness for all conventionally powered surface ships. The Immediate Superior in Command (ISIC) is responsible for the engineering qualification of assigned conventionally powered surface ships. Afloat Training Groups (ATGs) will provide engineering assessment, training, and qualification teams to support ISICS in the execution of the engineering qualification program.

b. Afloat Training Groups

(1) The experience and expertise formerly resident in the fleet Propulsion Examining Boards (PEB) will be integrated as subject matter experts into the Afloat Training Groups. The Surface TYCOMs will ensure that ATG engineering training and assessment teams are available to support the ISIC as desired during engineering training events. ATG engineering qualification team personnel will be used as technical experts to augment the ISICs during the conduct of engineering assessments and the Underway Demonstration. These ATG personnel will be assigned to the ISIC and the ship’s CO during the conduct of these events.

(2) At an ISIC's request, individual units may have specific ATG staff engineering personnel aligned with them during the basic training and assessment. Further, the ATG will align a "senior engineering member" to support ISICs as their designated liaison officer. As advocates for engineering readiness, ATG staff engineering personnel will be made available as mentors to support ISIC needs on engineering issues.

(3) TYCOMS, as the source of subject matter expertise, will use ATG assets for analyzing trends and problems and advising on the best course to ensure sustained engineering readiness.

4. Discussion. The focus of the Engineering Qualification program is to demonstrate a safe, effective and ready engineering plant, which leads to a determination that the ship is qualified to operate in accordance with established standards and operating procedures. A guiding principle will be that elements necessary to complete qualification need to be satisfactorily demonstrated only once.

a. Standards and Operating Procedures. Responsibility for maintaining standards resides with the Commanding Officer and ISIC (CO/ISIC). The use of the Engineering Operational Sequencing System (EOSS), Naval Ships Technical Manual (NSTM), equipment technical manuals, Planned Maintenance System (PMS),

and TYCOM directives are the benchmarks by which engineering readiness is measured. This process does not alleviate the requirement to adhere to those publications, but recognizes that validating engineering readiness is a complex matter that includes the judgement of the ISIC and Commanding Officer.

b. ISIC Initial Assessment. At the start of the engineering training and assessment process, the ISIC will conduct an engineering assessment to determine the ship's state of engineering readiness. This assessment should be focused on material readiness, the level of training of the engineering watch sections and training teams, and the ship's ability to fight a major machinery space class "B" fire. Its purpose is to assist the Commanding Officer in establishing the engineering training objectives for the basic training phase. ATG training and assessment teams will be available to assist/augment the ISIC in the conduct of this assessment.

c. Training. Individual unit training is tailored by the Commanding Officer and the ISIC and will differ for each particular set of circumstances (i.e. length of availability, crew turnover, etc.). Training should be based on training objectives established by the Commanding Officer during the initial assessment and concurred in by the ISIC. All formal engineering training events, outside the basic training phase, are designated Limited Team Trainers (LTT). Basic phase training and LTTs will be requested by the CO/ISIC and will focus only on areas designated by the CO/ISIC. ATG engineering training and assessment teams are available to assist in any training event within the basic training phase or as an LTT. The ultimate goal of basic engineering training is to establish the following:

(1) Adequate operable propulsion machinery to safely take the ship to sea.
(2) Two qualified watch teams and a training team.
(3) Satisfactory demonstration of a major machinery space class "B" Fire drill using the underway organization.
(4) Safety devices within periodicity.
(5) Compliant training and management programs.

Training culminates when the ISIC determines that the ship is ready for an Underway Demonstration.

c. Underway Demonstration

(1) The Underway Demonstration will be scheduled once the ISIC and the Commanding Officer are satisfied that the ship has completed its basic engineering training. The ISIC will act as the qualification authority. In order to standardize Underway Demonstrations across the fleets, ATG engineering qualification teams will augment the ISIC staff for the conduct of the Underway Demonstration.

(2) The Underway Demonstration should typically be no longer than one day. It commences underway with a safety walk-thru followed by two watch sections demonstrating evolutions and drills. The ISIC will report to the TYCOM when the Underway Demonstration has been completed to the ISIC's satisfaction. In cases where sustained outstanding engineering readiness has been demonstrated, the ISIC may waive the formal Underway Demonstration. The ISIC will provide the TYCOM the detailed basis for the waiver.

5. Periodicity. This process will be conducted on each ship once per Inter-Deployment Training Cycle (IDTC). Typically it should be completed during the basic phase of training. Commands with irregular deployment cycles (such as forward-deployed units) will be assessed by their ISIC once every two years.

6. Light Off Assessments (LOA). An LOA is not required for availabilities less than 120 days. For availabilities greater than 120 days and new construction ships, an LOA will be required per TYCOM directives.

7. Restricted Operations (RO). A ship assessed as unable to obtain or maintain standards, in the judgement of the ISIC, will be designated for restricted operations. Ships designated for restricted operations do not meet minimum propulsion plant

readiness requirements for unrestricted operations. The following restrictions apply for restricted operation ships:

a. Operate at sea only for ISIC supervised training,

repeat Underway Demonstrations, emergency sorties, or national emergencies.

8. Action. The following actions are assigned:

a. ISIC. Execute engineering assessment, training and qualification on behalf of the TYCOMs.

b. Afloat Training Group. Provide teams to ships and ISICs in support of engineering training.

c. Surface TYCOM. Assure that the requisite officer and enlisted engineering knowledge and experience are kept resident in the ATGs through careful monitoring of the personnel assignment and distribution process.

"Signed"	**"Signed"**
EDWARD MOORE, JR.	**HENRY C. GIFFIN III**
COMNAVSURFPAC	**COMNAVSURFLANT**

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